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**SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

**FORM 6-K**

**REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16 OF  
THE SECURITIES EXCHANGE ACT OF 1934**

*For the month of August 2016*

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**BioLineRx Ltd.**

(Translation of registrant's name into English)

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**2 HaMa'ayan Street**

**Modi'in 7177871, Israel**

(Address of Principal Executive Offices)

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Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F  Form 40-F

Indicate by check mark whether the registrant by furnishing the information contained in this form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934:

Yes  No

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On August 8, 2016, the registrant will issue the press release which is filed as Exhibit 1 to this Report on Form 6-K.

This Form 6-K, including all exhibits hereto, is hereby incorporated by reference into all effective registration statements filed by the Company under the Securities Act of 1933.

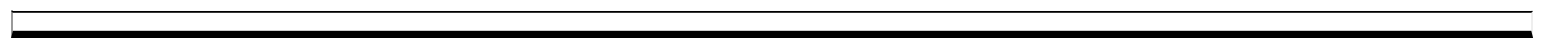
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Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

**BioLineRx Ltd.**

By: /s/ Philip Serlin  
Philip Serlin  
Chief Financial and Operating Officer

Dated: August 8, 2016





For Immediate Release

**BioLineRx Signs Second Clinical Immuno-Oncology  
Collaboration Agreement to Investigate Combination of  
BL-8040 and KEYTRUDA® for Pancreatic Cancer**

***- Phase 2 study is part of strategic clinical research collaboration between  
MSD and MD Anderson Cancer Center aimed at evaluating  
KEYTRUDA in selected GI tumors using various combinations -***

Tel Aviv, Israel - August 8, 2016 - BioLineRx Ltd. (NASDAQ/TASE: BLRX), a clinical-stage biopharmaceutical company dedicated to identifying, licensing and developing promising therapeutic candidates, announced today the signing of a collaboration agreement with The University of Texas MD Anderson Cancer Center for the investigation of BL-8040 in combination with KEYTRUDA® (pembrolizumab) in pancreatic cancer. The study will be conducted as an investigator-sponsored study, as part of a strategic clinical research collaboration between MSD (known as Merck in the US and Canada) and MD Anderson Cancer Center aimed at evaluating Merck's anti-PD-1 therapy, KEYTRUDA, in combination with various treatments and novel drugs.

The open-label, single center, single-arm Phase 2 study aims to evaluate the potential of BL-8040 with KEYTRUDA in pancreatic cancer and will focus on the mechanism of action by which both drugs might synergize. In addition to assessing clinical response, the study will include multiple assessments to evaluate the biological anti-tumor effects induced by the combination. BioLineRx will supply BL-8040 for the study, which is expected to commence later this year.

In June 2016, the Company announced the filing of the regulatory submissions required to commence a separate Phase 2a study focusing on evaluating the clinical efficacy of BL-8040 in combination with KEYTRUDA, also for the treatment of patients with pancreatic cancer. This trial, named the COMBAT study, will be conducted under a collaboration agreement between BioLineRx and MSD announced in January 2016. The study is expected to commence shortly after receipt of regulatory approval, anticipated in the third quarter of 2016.

BL-8040, BioLineRx's lead oncology platform, is a CXCR4 antagonist that has been shown in several clinical trials to be a robust mobilizer of immune cells and to be effective at inducing direct tumor cell death. Additional findings in the field of immuno-oncology suggest that CXCR4 antagonists may be effective in inducing the infiltration of anti-tumor T cells into the tumor. Therefore, when combined with KEYTRUDA, which blocks the interaction between PD-1 and its ligands, PD-L1 and PD-L2, thereby activating T lymphocytes, BL-8040 has the potential to enable activated T cells to better reach tumor cells in the fight against pancreatic cancer.

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“We are very excited that MSD and MD Anderson Cancer Center selected BL-8040 to be tested under their collaboration. This will be the second study planned for investigating the combination of BL-8040 and KEYTRUDA, which further validates the potential of combining the two for the treatment of metastatic pancreatic cancer patients,” said Kinneret Savitsky, Ph.D., Chief Executive Officer of BioLineRx. “We believe that the combination of BL-8040 with KEYTRUDA has the potential to expand the benefit of immunotherapy to cancer types currently resistant to immuno-oncology treatments, such as pancreatic cancer, which represent a significant unmet medical need. Furthermore, we view BL-8040’s inhibition of CXCR4, which may affect the immunosuppressive tumor micro-environment, as potentially synergistic with immune checkpoint inhibitors in additional oncological indications.”

#### **About Pancreatic Cancer**

Pancreatic cancers of all types are the seventh most common cause of cancer deaths. According to the American Cancer Society, in 2015, nearly 50,000 were diagnosed with pancreatic cancer and an estimated 40,000 will die from the disease. The most common type of pancreatic cancer is pancreatic adenocarcinoma, which accounts for about 85 percent of cases. These adenocarcinomas start within the part of the pancreas that makes digestive enzymes. There are usually no symptoms in the early stages of the disease and symptoms that are specific enough to suggest the onset of pancreatic cancer typically do not develop until the disease has reached an advanced stage. The five-year survival rate of pancreatic adenocarcinoma is around seven percent.

#### **About BL-8040**

BL-8040 is a short peptide for the treatment of acute myeloid leukemia, solid tumors, and certain hematological indications. It functions as a high-affinity antagonist for CXCR4, a chemokine receptor that is directly involved in tumor progression, angiogenesis, metastasis and cell survival. CXCR4 is over-expressed in more than 70% of human cancers and its expression often correlates with disease severity. In a number of clinical and pre-clinical studies, BL-8040 has shown robust mobilization of cancer cells from the bone marrow, thereby sensitizing these cells to chemo- and bio-based anti-cancer therapy, as well as a direct anti-cancer effect by inducing apoptosis. In addition, BL-8040 has also demonstrated robust stem-cell mobilization, including the mobilization of colony-forming cells, and T, B and NK cells. BL-8040 was licensed by BioLineRx from Biokine Therapeutics and was previously developed under the name BKT-140.

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## About BioLineRx

BioLineRx is a clinical-stage biopharmaceutical company dedicated to identifying, in-licensing and developing promising therapeutic candidates. The Company in-licenses novel compounds, primarily from academic institutions and biotech companies based in Israel, develops them through pre-clinical and/or clinical stages, and then partners with pharmaceutical companies for advanced clinical development and/or commercialization.

BioLineRx's leading therapeutic candidates are: BL-8040, a cancer therapy platform, which has successfully completed a Phase 2a study for relapsed/refractory AML, is in the midst of a Phase 2b study as an AML consolidation treatment, and has recently initiated a Phase 2 study in stem cell mobilization for allogeneic transplantation; and BL-7010 for celiac disease and gluten sensitivity, which has successfully completed a Phase 1/2 study. In addition, BioLineRx has a strategic collaboration with Novartis for the co-development of selected Israeli-sourced novel drug candidates, and has recently signed a collaboration agreement with MSD (known as Merck in the US and Canada) to run a Phase 2a study in pancreatic cancer using the combination of BL-8040 and Merck's KEYTRUDA®.

For additional information on BioLineRx, please visit the Company's website at [www.biolineRx.com](http://www.biolineRx.com), where you can review the Company's SEC filings, press releases, announcements and events. BioLineRx industry updates are also regularly updated on [Facebook](#), [Twitter](#), and [LinkedIn](#).

*Various statements in this release concerning BioLineRx's future expectations, including specifically those related to the development and commercialization of BL-8040, constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. These statements include words such as "may," "expects," "anticipates," "believes," and "intends," and describe opinions about future events. These forward-looking statements involve known and unknown risks and uncertainties that may cause the actual results, performance or achievements of BioLineRx to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Some of these risks are: changes in relationships with collaborators; the impact of competitive products and technological changes; risks relating to the development of new products; and the ability to implement technological improvements. These and other factors are more fully discussed in the "Risk Factors" section of BioLineRx's most recent annual report on Form 20-F filed with the Securities and Exchange Commission on March 10, 2016. In addition, any forward-looking statements represent BioLineRx's views only as of the date of this release and should not be relied upon as representing its views as of any subsequent date. BioLineRx does not assume any obligation to update any forward-looking statements unless required by law.*

KEYTRUDA® is a registered trademark of Merck Sharp & Dohme Corp., a subsidiary of Merck & Co., Inc.

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